Ch. XXII. Slotted Waveguide Antennas

Card 23/26

Ultrashort-wave Antennas

Ch. XXIV. Director Antennas

Card 25/26

Ultrashort-wave Antennas

AVAILABLE: Library of Congress (TK 6565 .A6 A56)

Card 26/26

JJP/ad
7-28-58

VORONOVA, A.I.

BEN'KOVA, Natal'ya Pavlovna; POPOV, A.N., otvetstvennyy red.; VORONOVA, A.I., red.; SHEFER, G.I., tekhn.red.

[The International Geophysical Year and studies of the upper layers of the atmosphere] Mezhdunarodnyi geofizicheskii god i issledovaniia verkhnikh sloev atmosfery. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1958. 47 p. (MIRA 11:5)
(Atmosphere, Upper)

VORONOVA, A. I.

ZAYEZDNYY, Aleksandr Mikhaylovich; KARANCHUK, P.G., otvetstvennyy redaktor; VORONOVA, A.I., redaktor; RITTBERGER, N.V., tekhnicheskiy redaktor

[A collection of problems and exercises for a course in "theoretical radio engineering"] Sbornik zadach i uprazhnenii po kursu "Teoreticheskaia radiotekhnika." Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1957. 470 p. (MLRA 10:5)

(Radio--Problems, exercises, etc.)

KUZYK, Danil Fedorovich; KULESHOV V.N., redaktor; VOROBOVA, A.I., redaktor; SOKOLOVA, R.Ya., tekhnicheskiy redaktor.

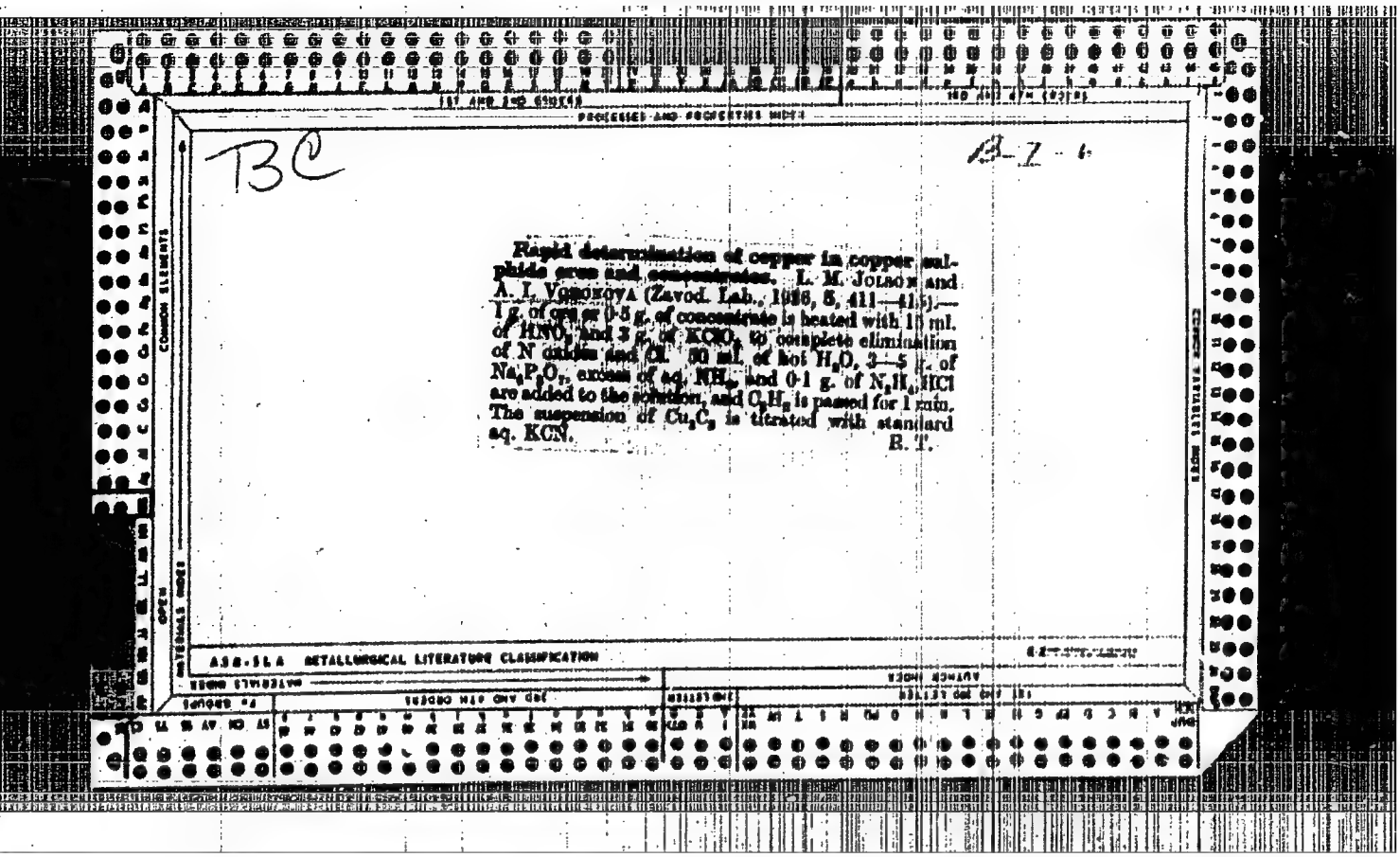
[Locating damages to underground radio communication lines] Otyskanie povrezhdenii na podzemnykh liniiakh radiofikatsii. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1955. 42 p. (Electric lines--Underground) (MLRA 8:10)

SNITSEREV, Georgiy Aleksandrovich; BABENKO, A.A., redaktor; VOROBOVA, A.I., redaktor; VEYNTRAUB, A.B., tekhnicheskiy redaktor.

[Measurements in repairing and adjusting radio receiving sets] Izmereniia pri remonte i nalazhivanii radiopriemnikov. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1955. 122 p. (MLRA 8:11)
(Radio--Receivers and reception)

MIKHAYLOV, Yevgeniy Vasil'yevich; KANTOR, L.Ya., otvetstvennyy redaktor; VORONOVA, A.I., redaktor; SOKOLOVA, R.Ya., tekhnicheskiy redaktor

[Type TU, MGSRTU, KTU, and UK radio rebroadcasting apparatus] Radiotransliatsionnye ustanovki tipov TU, MGSRTU, KUT i UK. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1956. 69 p.(MLRA 9:7)
(Radio--Apparatus and supplies)



TBC

B-7-6

Rapid determination of copper in copper sulphide ores and concentrates. L. M. Jolaox and A. I. Vgnogova (Zavod. Lab., 1936, 5, 411—415).—1 g. of ore or 0·5 g. of concentrate is heated with 10 ml. of HNO_3 and 3 g. of $KClO_3$ to complete elimination of N oxides and Cl. 50 ml. of hot H_2O, 3—5 g. of $Na_4P_2O_7$, excess of aq. NH_3, and 0·1 g. of N_2H_4,HCl are added to the solution, and C_2H_2 is passed for 1 min. The suspension of Cu_2C_2 is titrated with standard aq. KCN.

B. T.

A38-51A METALLURGICAL LITERATURE CLASSIFICATION

DOLUKHANOV, Mark Pavlovich; GRUDINSKAYA, G.P., retsenzent; VASIL'YEV, Ye.N., retsenzent; BARTENEV, G.M., retsenzent; VORONOVA, A.I., red.; KARABILOVA, S.F., tekhn.red.

[Propagation of radio waves] Rasprostranenie radiovoln. Izd.2. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1960. 390 p. (MIRA 14:2)

(Radio waves)

VORONOVA, A.L.; GRITSMAN, Yu.Ya.

Letter to the editor of "Vestnik khirurgii." Vest.khir. 78 no.4:
143 Ap '57. (MLRA 10:9)
(RECTUM--SURGERY)

VORONOVA, A.M.

YABLOKOV, D.D., professor; VORONOVA, A.M., assistent; VITKOVSKAYA, G.L., assistent; PODOLYANIK, N.A., assistent.

Clinical aspects of silicosis in workers of metal mines. Bor'ba s sil. 1:232-239 '53. (MLRA 7:10)

1. Tomskiy meditsinskiy institut im. V.M.Molotova (for Voronova, Vitkovskaya and Podolyanik) 2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Yablokov).
(LUNGS--DUST DISEASES).

VORONOVA, A.M.

Changes in the capillaroscopic picture in pulmonary tuberculosis. Probl. tub. no.5:71 S-O '53. (MLRA 6:12)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zaveduyushchiy - professor D.D.Yablokov) Tomskogo meditsinskogo instituta.
(Tuberculosis) (Capillaries)

USSR/Medicine - New Drugs, Cardiotonics May 53

"Clinical Observations on the Effects of a New Cardiac Drug, Syrenid, on Patients With Circulatory Deficiency," D. D. Yablokov, A. M. Voronova, Faculty Ther Clin, Tomsk Med Inst im V. M. Molotov

Klin Med, Vol 31, No 5, pp 26-33

Syrenid is a highly active cardiotonic with properties similar to trophanthin. It acts rapidly after an intravenous administration of 0.51 cc per day. Does not produce toxic symptoms. Its cumulative effect is very mild and only rarely observed. The dosage and the course of treatment

272T22

with syrenid must be adjusted to suit the cardiovascular system of each patient. Syrenid is derived from Chelidonium majus plants which grow wild in Siberia and also from Syrenia siliculosa.

KOLOMOVA, A.M.

KOLOMOVA, A.M.; GALIBINA, A.I.

Treatment of cardiovascular insufficiency with intravenous erysimine. Sov.med. 19 no.1:45-50 Ja '55. (MLRA 8:4)

1. Iz fakul'tetskoy terapevticheskoy kliniki (dir. chlen-korrespondent Akademii meditsinskikh nauk SSSR prof. D.D.Yablokov) Tomskogo meditsinskogo instituta imeni V.M.Molotova (dir. prof. S.P.Khodkevich).
(CARDIAC GLYCOSIDES, therapeutic use,
Erysimum canescens glycoside erysimine)

VORONOVA, A.M., kandidat meditsinskikh nauk

Treatment of circulatory insufficiency with dilanisida. Terap. arkh.27 no.3:33-39 '55. (MLRA 8:9)

1. Iz fakul'tetskoy terapevticheskoy kliniki (dir.-chlen-korrespondent AMN SSSR Prof. D.D. Yablokov) Tomskogo meditsinskogo instituta imeni V.M. Molotova)

(DIGITALIS,
lanata glycoside dilanisida, ther.use)
(HEART DISEASES, therapy,
Digitalis lanata glycoside dilanisida)

BRONSHTEYN, Z.I.; MEYTIN, Yu.V.; SMEL'NITSKIY, F.S.; VORONOVA, A.M.; MURAV'YEV, V.A.

Glass textolite "ST" with a base of sized glass wool. Plast. massy no.10:59-62 '65. (MIRA 18:10)

L 2026-66 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EWP(1)/EWP(j)/T/EWP(b) WW/RM/WH

ACCESSION NR: AP5024513 UR/0191/65/000/010/0059/0063

678.06-419:677.521:677.86

AUTHOR: Bronshteyn, Z. I.; Meytin, Yu. V.; Smel'nitskiy, F. S.; Voronova, A. M.; Murav'yev, V. A.

TITLE: Glass textolite ST based on sized glass cloth

SOURCE: Plasticheskiye massy, no. 10, 1965, 59-63

TOPIC TAGS: glass textolite, glass cloth, fiberglass, electric property, dielectric permeability, electric resistance, phenolformaldehyde, specialized coating, organometallic compound, silane, heat property

ABSTRACT: The moisture resistance and electrical properties of glass textolite ST based on phenol-formaldehyde resin IF and made of glass cloth treated with different sizings were studied to help in selection of materials with optimum properties. The electrical and physical-mechanical properties of the textolite based on sized glass cloth are much better than those of standard glass textolite; the electrical properties compare with those of glass textolite ST containing polyphenylsiloxane. Glass cloth E and SE was sized with the following materials:

Card 1/2

L 2026-66
ACCESSION NR: AP5024513

gamma-aminopropyltriethyoxysilane AGM-9, a chromium complex of methacrylic acid--Volan 702, ethylhydroxysiloxane liquid GKZh94, polymethylsilazane GKZh16, polydimethylsilazane L-24k, aminosilanes ADE-3 and ADER-2, vinyltriethyoxysilane VTES, and a phenylethoxysilane hydrolysis product--resin F-9. The first four sizings imparted good electrical properties after prolonged soaking in water or in 95% humidity at 20 C. The effectiveness of GKZh94 and GKZh16 was reduced with increased temperature. Procedures were worked out for the thermo-chemical treatment of glass cloth with Volan 702 or with AGM-9 to insure obtaining textolite with high electrical properties under high humidity conditions. Orig. art. has: 8 tables and 4 figures

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: MT

NR REF SOV: 009 OTHER: 004

Card 2/2

VORONOVA, A.M.; KUTOLINA, N.I.

Treatment with olitorizide of cardiac insufficiency. Sov.med. no.3:136-140 '62. (MIRA 15:5)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zav. kafedroy - chlen-korrespondent AMN SSSR prof. D.D. Yablokov) Tomskogo meditsinskogo instituta (dir. - prof. I.V. Toroptsev).
(CARDIAC GLYCOSIDES) (BLOOD—CIRCULATION, DISORDERS OF)

VORONOVA, G.T.; CHOPOROV, A.P.

Commercial prospecting of the multi-layered Zhetybay field. Neft. khoz. 42 no.2:28-35 F '64. (MIRA 17:3)

SIMAKOVA, T.L.; STRIGALEVA, N.V.; KOLESNIK, Z.A.; VORONOVA, I.K.; GERASYUTO, Z.S.; SHMONOVA, N.I.

Role of bacteria in the conversion of the hydrocarbon part and the asphaltic-bituminous components of paraffin petroleum under anaerobic conditions. Trudy VNIGRI no.174:77-97 '61. (MIRA 14:11)

(Petroleum--Microbiology)

VORONOVA, L.D.

Protection of some useful insects. Okhr.prir.i zapov.delo v SSSR no.6:84-93 '60. (MIRA 14:5)

(Insects, Injurious and beneficial)

VORONOVA, M.

Program of our work. NTO 3 no.3:15 Mr '61. (MIRA 14:3)

1. Zamestitel' predsedatelya Gor'kovskogo oblastnogo pravleniya Nauchno-tekhnicheskogo obshchestva sel'skogo i lesnogo khozyaystva.
(Gorkiy Province--Farm mechanization)

VORONOVA, M.L.

Petrographic characteristics of lower Cambrian salt-bearing sediments in the southeastern Siberian Platform. Trudy VNIIG no.40:70-101 '60. (MIRA 14:11)
(Siberian Platform--Salt deposits)

VAKHRAMEYEVA, V.A.; VORONOVA, M.L.

Luneburgite from Kara-Bogaz-Gol and Uzun-Su. Trudy VNIIG no.40:330-336 '60. (MIRA 14:11)
(Kara-Bogaz-Gol(Guef)--Luneburgite)

VORONKINA, T.M., inzh. (g.Sal'sk)

How to consolidate the economic accountability system of a railroad district. Zhel.dor.transp. 42 no.2:56-58 F '60. (MIRA 13:5)

(Railroads--Accounts,bookkeeping, etc.)

SOKOLOVA, N.V.; VORONOVA, A.M. (Tomsk)

The possibility of differentiation and formation of osteosarcoma cells in pleural exudate [with summary in English]. Arkh.pat. 20 no.4:44-49 '58. (MIRA 11:5)

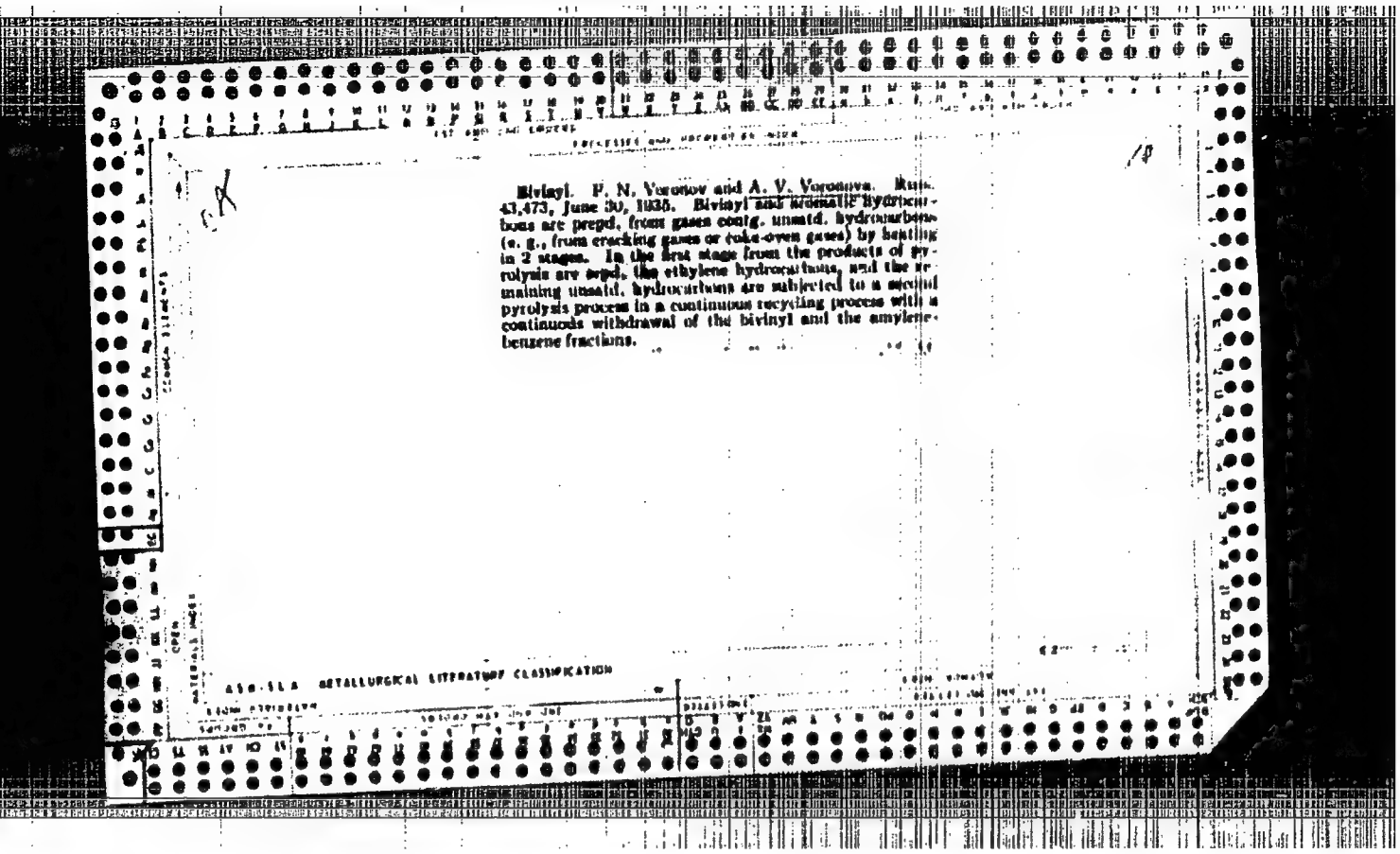
1. Iz kafedry patologicheskoy anatomii (zav.-prof. I.V. Toroptsev) i kafedry fakul'tetskoy terapii (zav.-prof. D.D. Yablokov) Tomskogo meditsinskogo instituta.

(LUNG NEOPLASMS,
sarcoma, differentiation of tumor cells in pleural exudate (Rus)
(SARCOMA, pathology
lung, differentiation of tumor cells in pleural exudate (Rus)

BELOUSOV, S.P.; YAMPOL'SKIY, V.G., otv. red.; VORONOVA, A.I., red.; MARKOCH, K.G., tekhn. red.

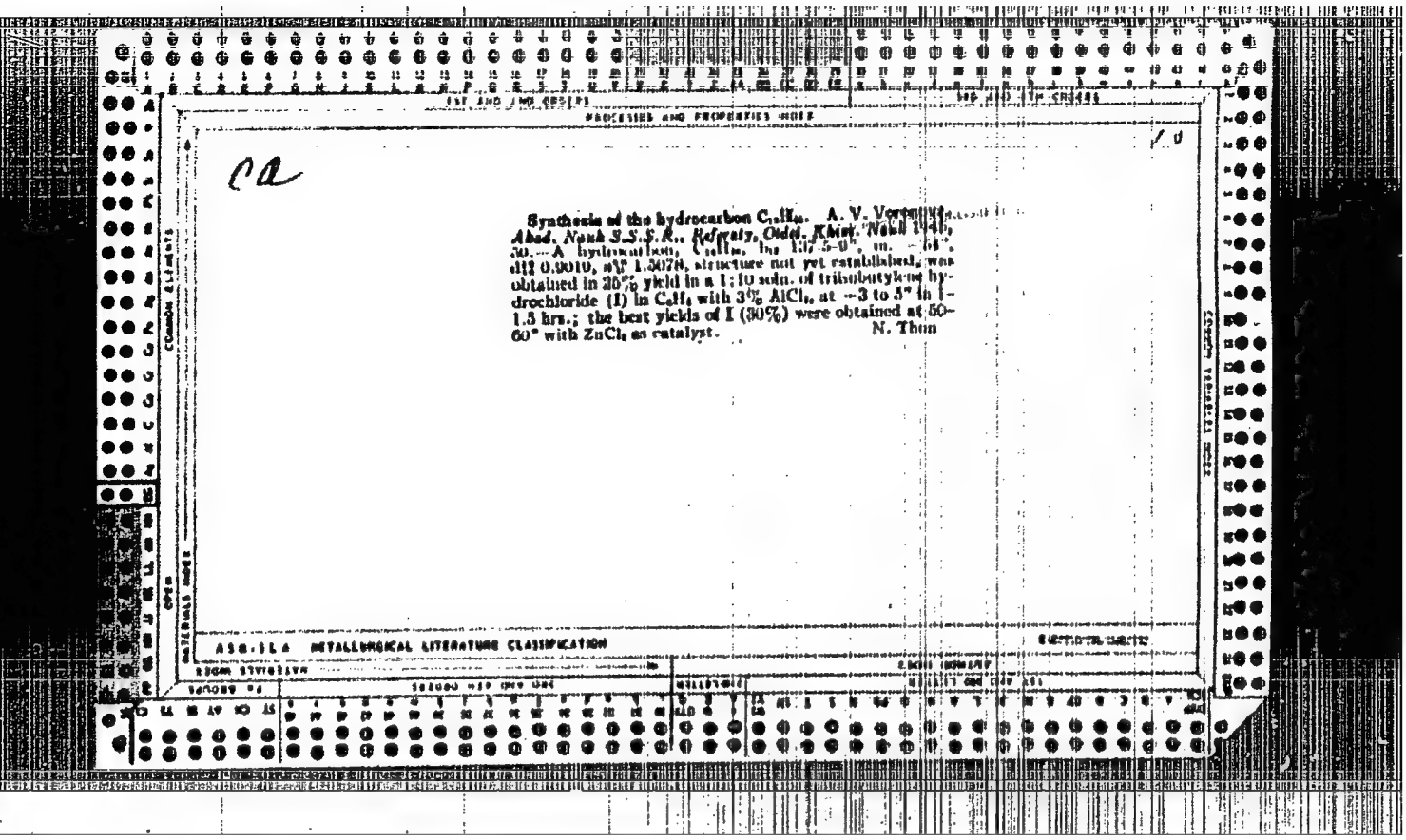
[Directional antennas for radio reception in the range from 200 - 2000 meters] Napravlennye antenny dlia professional'nogo priema radioveshchaniia v diapazone 200 - 2000 m. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1961. 71 p. (MIRA 14:9)

(Radio—Antennas)



Divinyl. P. N. Veronov and A. V. Voronova. Russ. 43,473, June 30, 1935. Divinyl and aromatic hydrocarbons are prepd. from gases contg. unsatd. hydrocarbons (e. g., from cracking gases or coke-oven gases) by heating in 2 stages. In the first stage from the products of pyrolysis are sepd. the ethylene hydrocarbons, and the remaining unsatd. hydrocarbons are subjected to a second pyrolysis process in a continuous recycling process with a continuous withdrawal of the divinyl and the amylene-benzene fractions.

A50-51A METALLURGICAL LITERATURE CLASSIFICATION

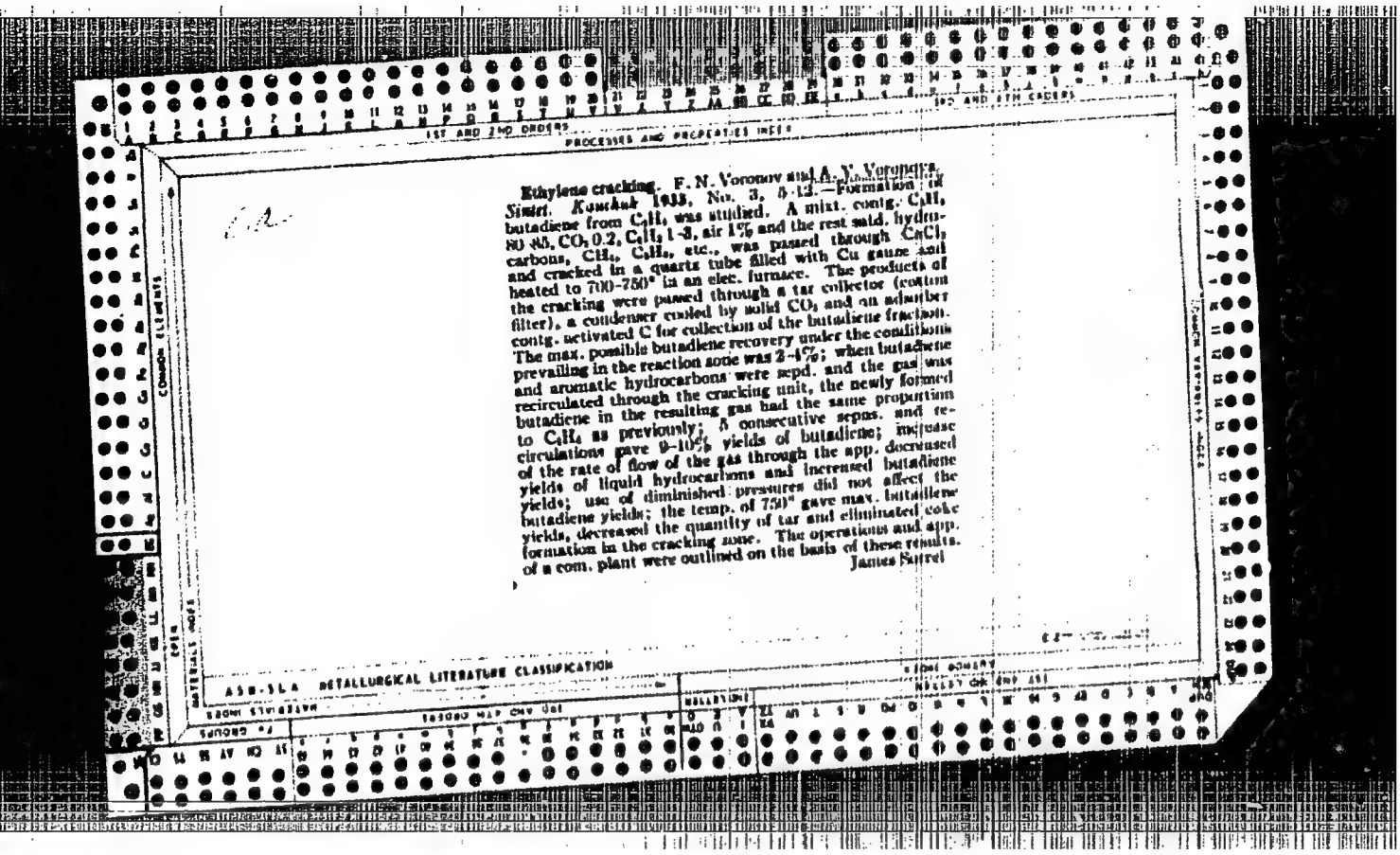


ca

Synthesis of the hydrocarbon $C_{21}H_{44}$. A. V. Vorontsova, *Akad. Nauk S.S.S.R., Referaty, Otdel. Khim. Nauk* 1948, 50.—A hydrocarbon, $C_{21}H_{44}$, bp 137.5–9°, m. −68°, d_4^{15} 0.9010, n_D^{15} 1.5078, structure not yet established, was obtained in 35% yield in a 1:10 soln. of tributylene hydrochloride (I) in CaH_4 with 3% $AlCl_3$ at −3 to 5° in 1–1.5 hrs.; the best yields of I (30%) were obtained at 50–60° with $ZnCl_2$ as catalyst.

N. Thon

ASB-ILA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

Ethylene cracking. F. N. Voronov and A. V. Voronina. *Sintet. Kauchuk* 1933, No. 3, 5-13.—Formation of butadiene from C_2H_4 was studied. A mixt. contg. C_2H_4 80-85, CO_2 0.2, C_2H_2 1-3, air 1% and the rest satd. hydrocarbons, CH_4, C_2H_6, etc., was passed through $CaCl_2$ and cracked in a quartz tube filled with Cu gauze and heated to 700-750° in an elec. furnace. The products of the cracking were passed through a tar collector (cotton filter), a condenser cooled by solid CO_2 and an adsorber contg. activated C for collection of the butadiene fraction. The max. possible butadiene recovery under the conditions prevailing in the reaction zone was 2-4%; when butadiene and aromatic hydrocarbons were sepd. and the gas was recirculated through the cracking unit, the newly formed butadiene in the resulting gas had the same proportion to C_2H_4 as previously; 5 consecutive seps. and recirculations gave 9-10% yields of butadiene; increase of the rate of flow of the gas through the app. decreased yields of liquid hydrocarbons and increased butadiene yields; use of diminished pressures did not affect the butadiene yields; the temp. of 750° gave max. butadiene yields, decreased the quantity of tar and eliminated coke formation in the cracking zone. The operations and app. of a com. plant were outlined on the basis of these results.

James Sutrel

A58-51A METALLURGICAL LITERATURE CLASSIFICATION

MARCHUK, G.I., red.; VORONOVA, A.N., red.; MAZEL', Ye.I., tekhn. red.

[Theory and methods of designing nuclear reactors]Teoriia i metody rascheta iadernykh reaktorov; sbornik statei. Moskva, Gosatomizdat, 1962. 258 p. (MIRA 15:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Marchuk).
(Nuclear reactors)

VORONOVA, A.P.

Rack transmissions. Standartizatsiia 27 no.1:42-45 Ja '63.
(MIRA 17:4)

Voronova, A.V.

AUTHOR: Voronova, A.V. and Gurevich, A.G. 109-4-5/20

TITLE: Evaluation of the Propagation Constants of a Rectangular Waveguide with Ferrite Plates. (Raschet postoyannykh rasprostraneniya v pryamougolnom volnovode s ferritovymi plastinami)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol.2, No.4, pp. 401 - 407 (USSR)

ABSTRACT: Two waveguide phase-shifters are considered. One of these comprises a ferrite plate of thickness H, which is placed near one of the narrow walls of the guide. The second phase-shifter comprises two ferrite plates which are parallel to the narrow walls. The longer walls of the guide have a length a, and the plates are magnetised perpendicularly to the axis of the system. The plates are characterised by a permittivity ε and magnetic parameters $\mu = 0.9$ and α; the permettivity and the permeability of the guide were assumed as $\varepsilon_0 = \mu_0 = 1$.

The propagation constant γ of the guide with one ferrite plate can be found by solving:

$$\frac{x}{u_1} \operatorname{ctg} xh + x_0 \operatorname{ctg} x_0 l + \frac{\alpha\gamma}{uu_1} = 0 \qquad (2)$$

Card 1/4

Evaluation of the Propagation Constants of a Rectangular Waveguide with Ferrite Plates.

where:

$$x^2 = k_0^2 \varepsilon\mu_1 - \gamma^2$$

$$x_0^2 = k_0^2 - \gamma^2$$

$$k_0 = \frac{\omega}{c} = \frac{2\pi}{\lambda}$$

$$\mu_1 = \mu - \frac{\alpha^2}{\mu}$$

and

$$l = \frac{a}{2} - h.$$

Similarly, the propagation constant of a guide with two plates can be found from:

$$\frac{x}{\mu_1} \operatorname{ctgh} x - x_0 \operatorname{tg} x_0 l + \frac{\alpha\gamma}{\mu\mu_1} = 0 \qquad (3)$$

Card 2/4

Evaluation of the Propagation Constants of a Rectangular Waveguide with Ferrite Plates.

Equations (2) and (3) are given without derivation; they are presumably taken from a paper by V.V. Nikolskiy [Ref. 5]. The equations were solved numerically by the Newton's method by employing a fast electronic computer. The calculations were made for two directions of propagation (or two directions of the magnetising field), corresponding to the propagation constants γ_+ and γ_- ; and for the following values of the variable parameters: α = 0 to 0.5 , ε = 3 to 11 , h = (0.08 to 0.26)a , and $\lambda = \lambda_0 \pm \Delta\lambda$, where λ_0 = 1.39a and $\Delta\lambda|\lambda = 0.05$. The calculated results of γ_+ and γ_- were used to evaluate the so-called non-mutual phase-shift:

$$\eta = (\gamma_+ - \gamma_-)a \qquad (5)$$

and of its frequency coefficient:

$$K = \frac{\eta_{01} - \eta_{02}}{\eta_{01}} \quad \frac{\lambda_0}{2\Delta\lambda}$$

Card 3/4

Evaluation of the Propagation Constants of a Rectangular Waveguide with Ferrite Plates.

where η_{01} was calculated for $\lambda_1 = \lambda_0 - \Delta\lambda_1$ and η_{02} for $\lambda_2 = \lambda_0 + \Delta\lambda_2$. The values of η and K are plotted as functions of all the above variables for both the phase shifters (single-plate and two plates). Altogether twelve sets of graphs are given. By comparing the results obtained with a single plate (η_1, and K_1) with those for the system with two plates (η_2 and K_2) it is seen (Figs. 9 and 10) that the latter gives a bandwidth about twice larger than the former.
There are 6 references, of which 3 are Slavic.

SUBMITTED: October 25, 1957.

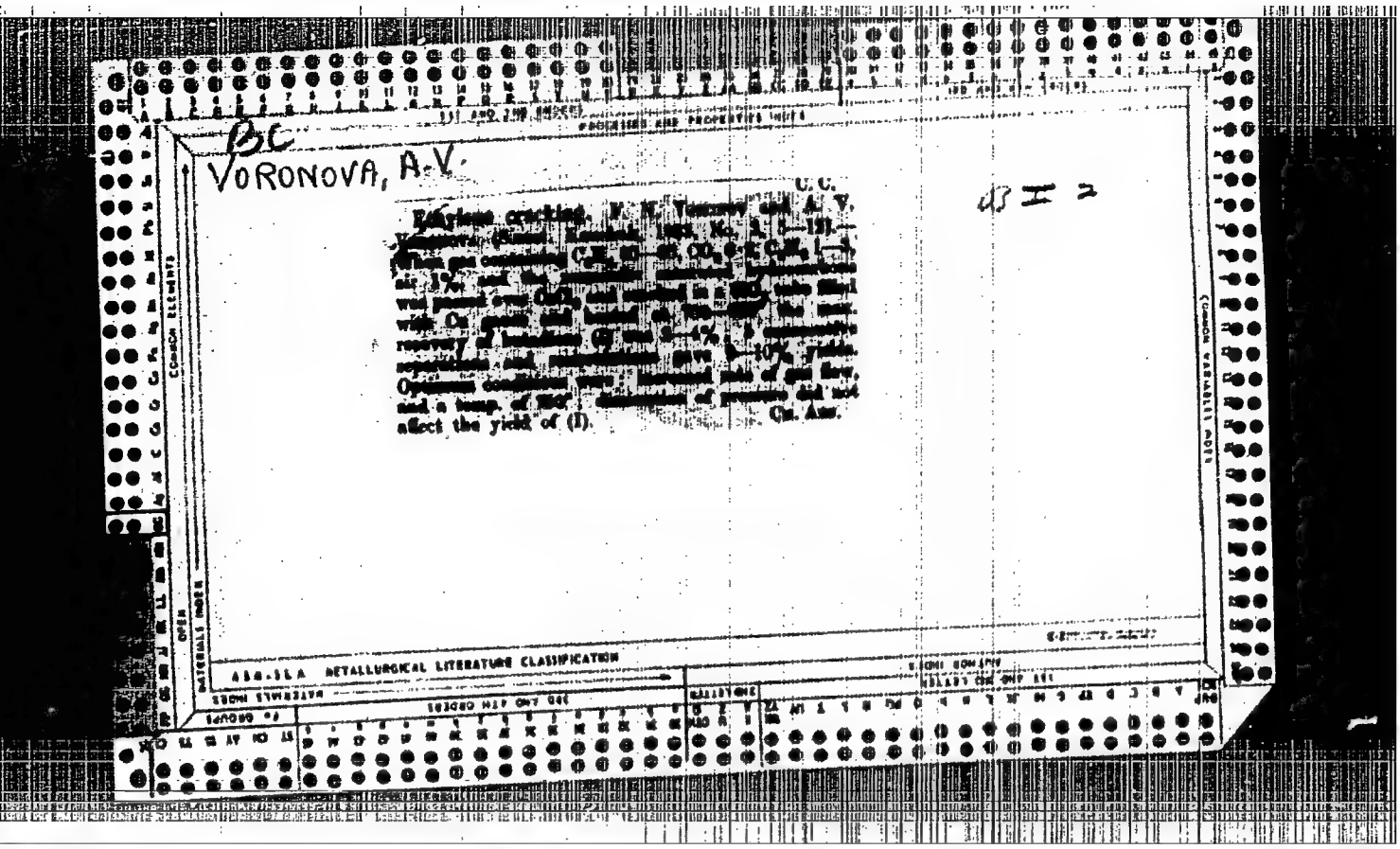
AVAILABLE: Library of Congress.

Card 4/4

KRASIK, L.B., dotsent; KUZNETSOVA, N.K.; GLIKINA, R.I.; VORONOVA, A.N.; KOCHESHKOVA, Z.V.

Organization and work of sections for premature infants in children's hospitals in the city of Molotov. Vop.okh.mat. i det. 1 no.6:60-64 N-D '56. (MLRA 10:1)

1. Iz kafedry pediatrii (ispolnyayushchiy obyazannosti zaveduyushchego dotsent L.B.Krasik) Molotovskogo meditsinskogo instituta (dir. - prof. I.I.Kositsyn)
(MOLOTOV--INFANTS (PREMATURE))

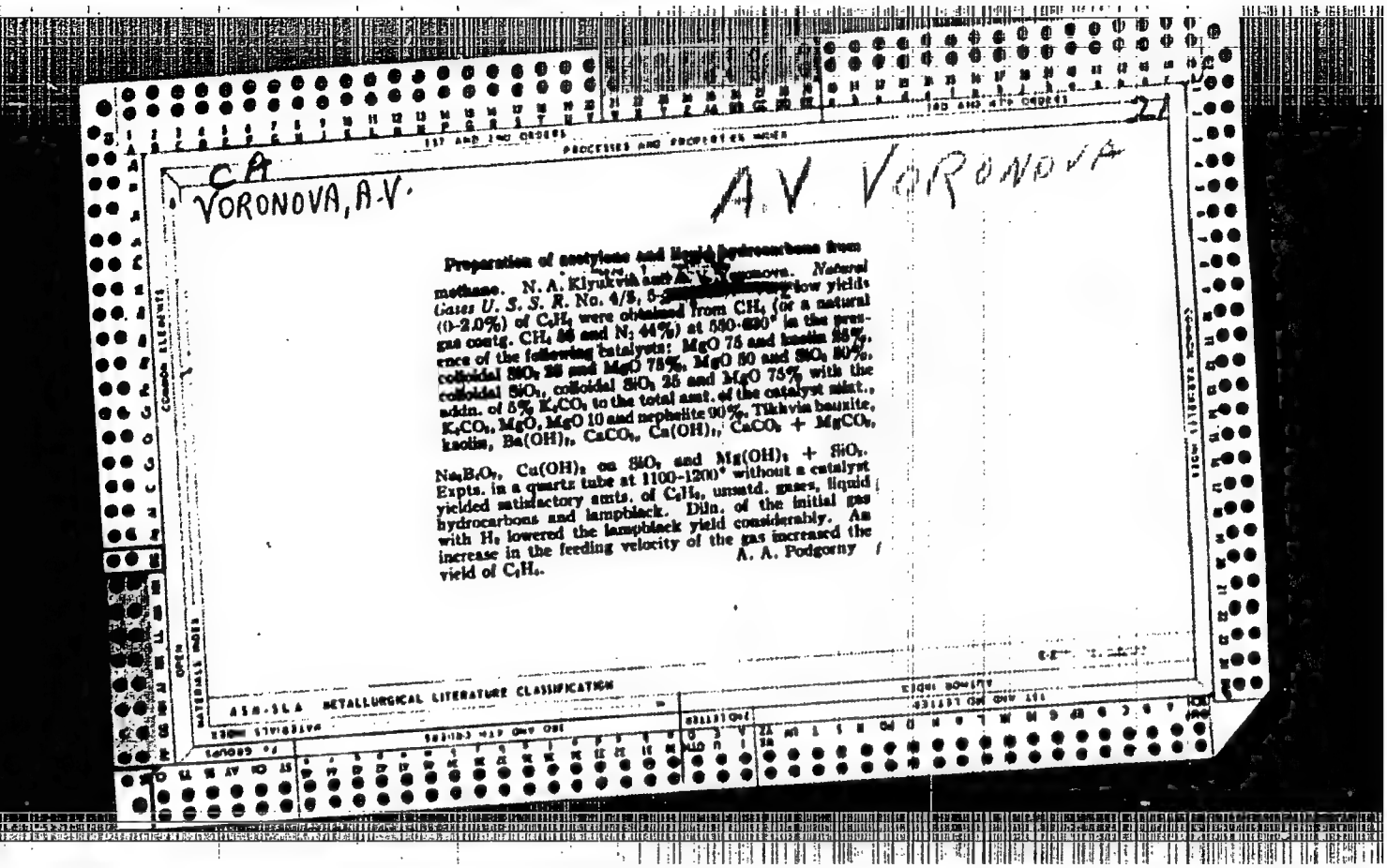


VORONOVA, A.V.

VORONOVA, A.V.; GUREVICH, A.G.

Calculation of the propagation constants in a rectangular waveguide equipped with ferrite plates. Radiotekh. i elektron. 2 no.4:401-407 Ap '57. (MLRA 10:9)

(Wave guides)



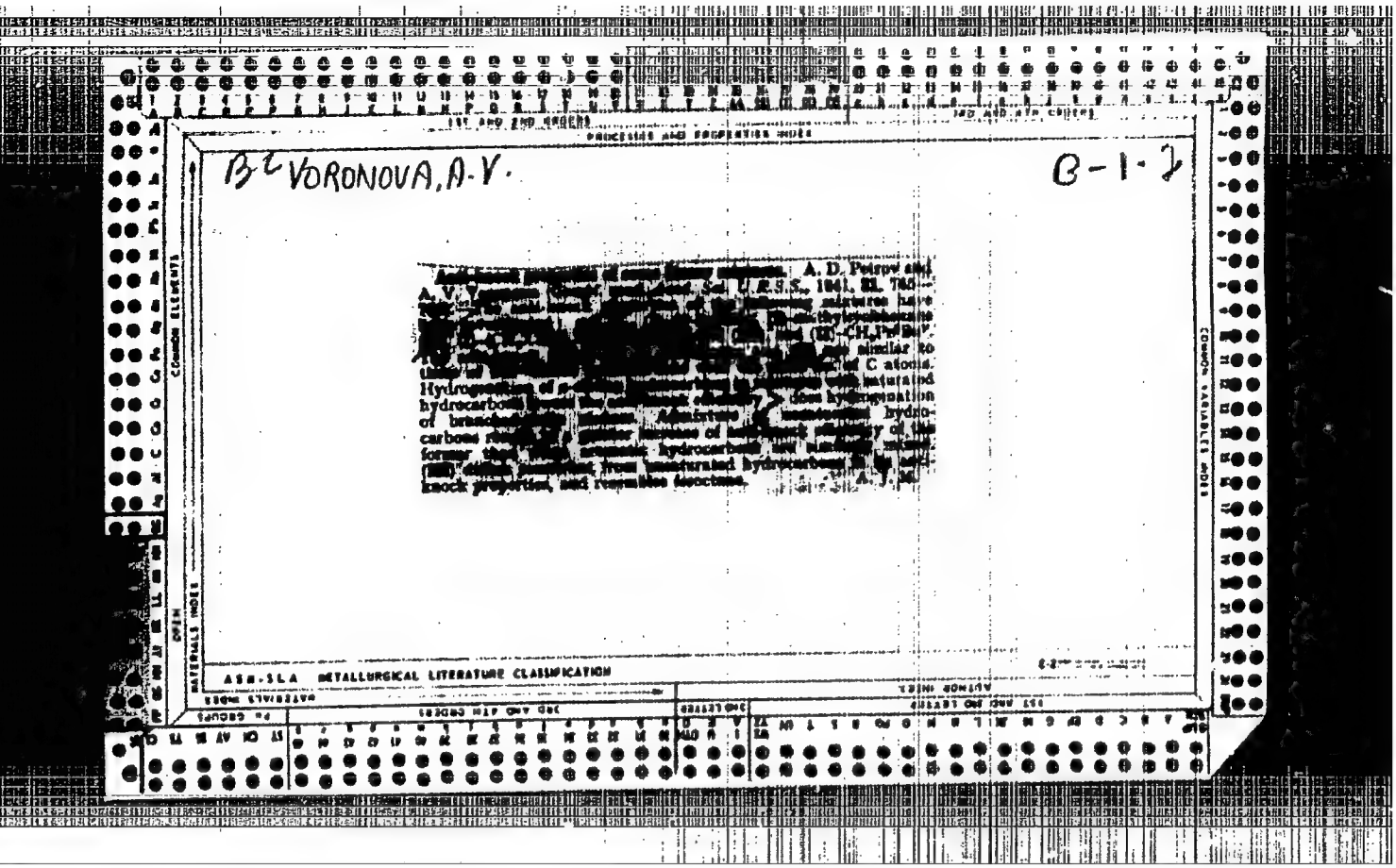
CA

VORONOVA, A.V.

A.V. VORONOVA

Preparation of acetylene and [illegible] hydrocarbons from methane. N. A. Klyukvin and A. V. Voronova. *Natural Gases U. S. S. R.* No. 4/5, 5-[illegible]. Low yields (0-2.0%) of C_2H_2 were obtained from CH_4 (or a natural gas contg. CH_4 56 and N_2 44%) at 550-650° in the presence of the following catalysts: MgO 75 and kaolin 25%, colloidal SiO_2 25 and MgO 75%, MgO 50 and SiO_2 50%, colloidal SiO_2, colloidal SiO_2 25 and MgO 75% with the addn. of 5% K_2CO_3 to the total amt. of the catalyst mixt., K_2CO_3, MgO, MgO 10 and nepheline 90%, Tikhvin bauxite, kaolin, $Ba(OH)_2$, $CaCO_3$, $Ca(OH)_2$, $CaCO_3$ + $MgCO_3$, $Na_2B_4O_7$, $Cu(OH)_2$ on SiO_2 and $Mg(OH)_2$ + SiO_2. Expts. in a quartz tube at 1100-1200° without a catalyst yielded satisfactory amts. of C_2H_2, unsatd. gases, liquid hydrocarbons and lampblack. Dilu. of the initial gas with H_2 lowered the lampblack yield considerably. An increase in the feeding velocity of the gas increased the yield of C_2H_2.

A. A. Podgorny



USSR/Cultivated Plants - Potatoes. Vegetables. Melons. etc. M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15610

Author : A.Ye. Voronova
Inst :
Title : Hardening Seeds and the Seedlings of Thermophyllic Cultures.
(Zakalka semyan i rassady termolyubivykh kul'tur).

Orig Pub : Sad i ogorod, 1956, No 12, 19-21

Abstract : At the Dalmatovo Variety Testing Patch in Kurganskaya Oblast' the hardening of the seeds and young seedlings of vegetable crops with alternating temperatures having acted on the swelling seeds increased the tomato yield by 30-50% and accelerated ripening by 8-15 days. When the seeds and seedlings of watermelon, eggplant and cucumber seeds were hardened the same good results were obtained.

Card 1/1

1. VORONOVA, A. YE.

2. USSR (600)

4. Vegetable Gardening

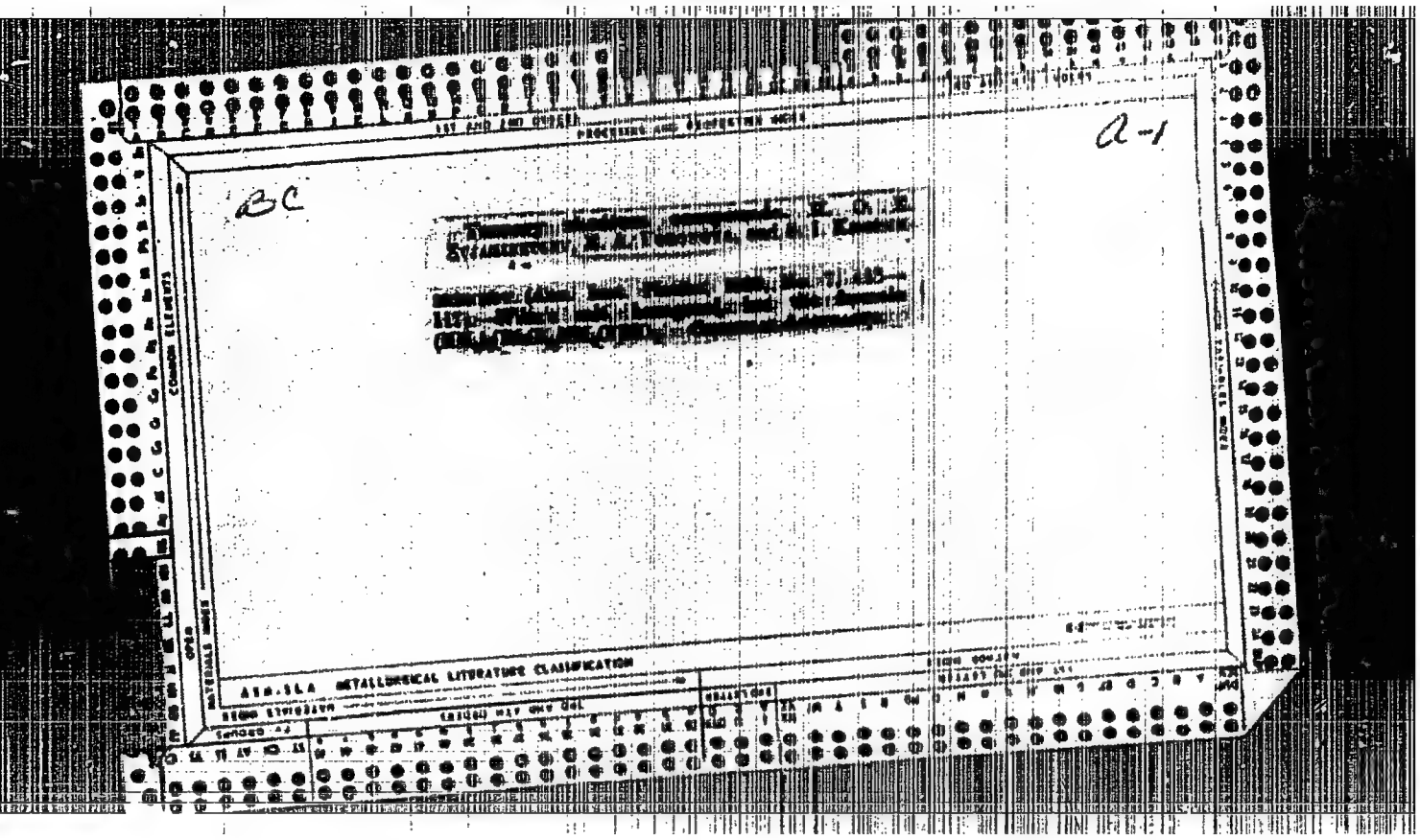
7. Hardening seeds and transplanting material of vegetable crops, Dost. sel'khoz., No. 4, 1953.

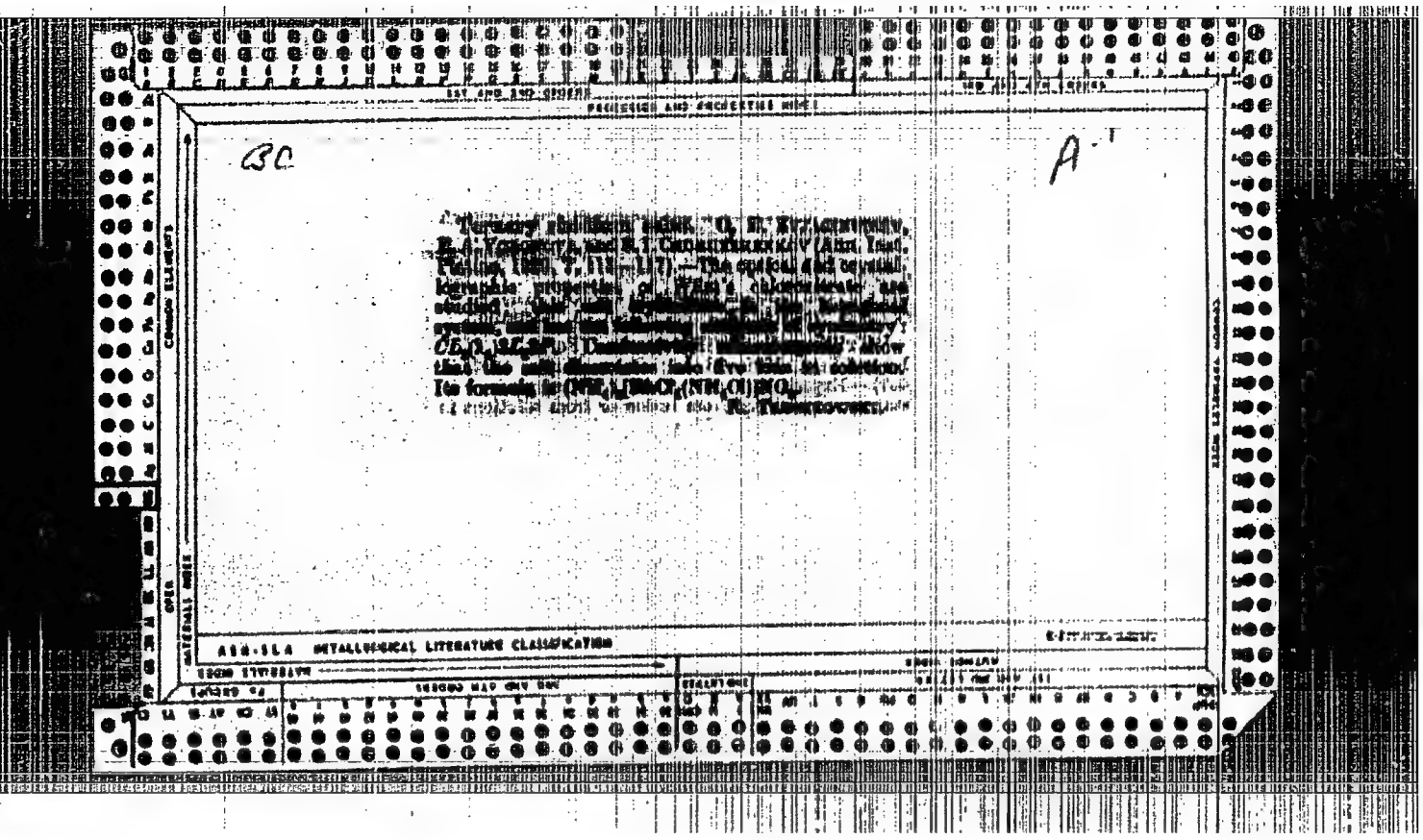
9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

Ed
1911

Dilatometric-like method for study of the polymorphism of fat. K. Yatsunova. *Uspekhi Ind. S.S.S.R.* 12, No. 2, 68–70 (1951).—The dilatometer MKhTIMP (not illustrated or described) was used. Example curves are presented showing points where phase changes take place.

M. M. Piskur





PRINCIPLES AND PROPERTIES INDEX

Ternary compounds of rhodium. II. [illegible] Zvyagintsev, [illegible] Vinogradova and S. I. Khorunzhenkov. *Ann. inst. platine* (Leningrad), No 7, 113-7(1930?).—The salt of Wilm has the formula $(NH_4)_3[RhCl_5(NH_4Cl)]NO_3$. Cond. measurements prove the presence of 2 anions and 3 cations. It crystallizes in the hexagonal system and has the following elements of symmetry: $CL_6(3L_3)3L_2 3P$.

Rae Mairi.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

C. A.
1951

General and Physical Chemistry
2

The existence of a β'-phase in higher monoacidic triglycerides. G. B. Ravich and K. O. Yerempin. *Doklady Akad. Nauk S.S.S.R.* 77, 1035-7(1951).—Thermal analysis of carefully purified tripalmitin gives an inflection at 46.5°, corresponding to melting of the γ form, and an inflection at 54-5.5°, corresponding to solid transformation of α into β'. A temp. halt at 51° appears to be the transformation of β' into β. The study of dilation of the sample on heating readily showed a total of 3 changes: 54°, 61.5°, and 65.8°. The results show the existence of 4 phases: glassy γ form, metastable cryst. α and β' phases, and stable cryst. β phase. Photomicrographs of specimens are shown.
G. M. Kosolapoff

BABKO, A.K.; CHALAYA, Z.I.; VORONOVA, E.D.

Luminescence method of determining boron in alkaline media using ion-exchange resins. Zav. lab. 31 no.2:157-159 '65. (MIRA 18:7)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

ACCESSION NR: AP4022109 S/0073/64/030/003/0274/0279

AUTHOR: Zharavskiy, F. G.; Serada, Yo. S.; Voronova, E. D.

TITLE: Extraction of hydriodic acid from aqueous solutions and separation of zinc and cadmium iodide complexes.

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 3, 1964, 274-279

TOPIC TAGS: hydriodic acid, zinc iodide complex, cadmium iodide complex, extraction, zinc cadmium separation, selective extraction, extractant, partition coefficient, rhodanide precipitation, solvent dielectric constant

ABSTRACT: Elements occurring in the same series are separated in the form of their halide and rhodanide complexes by selective extraction. In this study the distribution of hydriodic acid and of zinc and cadmium iodide complexes between water and oxygen-containing organic solvents was determined. By increasing the initial concentration of HI from 0.1 to 5.0 moles/l. its transfer to the organic phase of the water-organic solvent system is increased. The ability to extract HI increases in the following series of solvents: isoamylacetate, diethyl ether, isoamyl alcohol, butanol (best extractant). The extracting ability of these alcohols

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ACCESSION NR: AP4022109

parallels their dielectric constant. The distribution of zinc and cadmium iodide complexes (prepared from aqueous solutions of the corresponding sulfates and KI) between aqueous H_2SO_4-KI solutions and the following solvents was studied: isobutyl alcohol, isoamyl alcohol, diethyl ether, isobutylacetate, methylbutyl ketone, isoamyl acetate, and isoamylbenzoate. Increasing the acidity of the medium increases the separation of Cd into the organic phase, e.g., in isoamyl alcohol the partition coefficient is increased from 1.42 in 0.05 M H_2SO_4 to 111.00 in 6 M acid. An analgous effect occurs with Zn, only to a much lesser degree, on extraction with isoamyl alcohol, diethyl ether and methyl butylketone (from 0.12 in 0.05 M acid to 0.33 in 6 M acid in isoamyl alcohol). Extraction of the zinc iodide with the remaining organic solvents starts to increase with solutions 3 M or higher in acid. The ability of the alcohols and of the complex ethers to extract cadmium iodide increases with an increase in the molecular weight of a given class of compounds. By extracting a Cd-Zn mixture with isoamyl alcohol and subsequently treating the extract with a 25% solution of ammonium rhodanide, Zn-free Cd can be obtained even with an initial Zn:Cd ratio of 10:1. Orig. art. has: 4 tables.

Card 2/3

ACCESSION NR: AP4022109

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiev State University)

SUBMITTED: 04Dec62 DATE ACQ: 09Apr64 ENCL: 00

SUB CODE: CH NO REF SOV: 002 OTHER: 002

Card 3/3

RZHEKHIN, V.P.; POGONKINA, N.I.; VORONOVA, E.K.

Behavior of peroxide and epoxide compounds in the thermal treatment of oilseeds and oils. Masl.-zhir.prom. 25 no.8: 14-16 '59. (MIRA 12:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.
(Oils and fats) (Oxides)

VORONOVA, G. S., IVANOVA, N. A., AMOSOV, V. P.

"Epidemiological characteristics of dysentery in rural localities."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

VOROTOVA, G.S.

DYSENTERY

"The Epidemiological Characteristics of Dysentery in Rural Regions and the Measures for its Decrease", by B.P. Amosov, G.S. Voronova and N.A. Ivanova, Trudy Leningradskogo Sanitarno-Gigiyenicheskogo Instituta 1956, 27, pp 98-110 (from Meditsinskiy Referativnyy Zhurnal, Section 4, No 1, 1957.)

This article deals with the epidemiological characteristics of dysentery in 2 rayons. A series of examples and tables illustrate the following subjects: the rate of dysentery and other gastro-intestinal diseases in P-kiy Rayon in 1951-1954; the rate of acute dysentery in 1954, based on 3 age groups ; the rate of dysentery in 1952-1954 in medical district S; dysenteric rate in medical district S based on age groups; the hospitalization of dysenteric medical district S in 1954; the rate of dysentery and the other gastro-intestinal diseases in K Rayon from 1953 to October 1955; and the rate of dysentery and other gastro-intestinal diseases, broken down by months (of 1955), in K Rayon.

Card 1/1 - 32 -

GRYAZNOV, N.K.; VORONOVA, G.T.

Detailed investigation of Devonian oil pools being prepared for development in areas adjacent to the Romashkino field. Nauch.-tekh. sbor. po dob. nefti no.1:53-57 '58. (MIRA 15:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Romashkino region—Oil reservoir engineering)

VORONOVA, G.V.

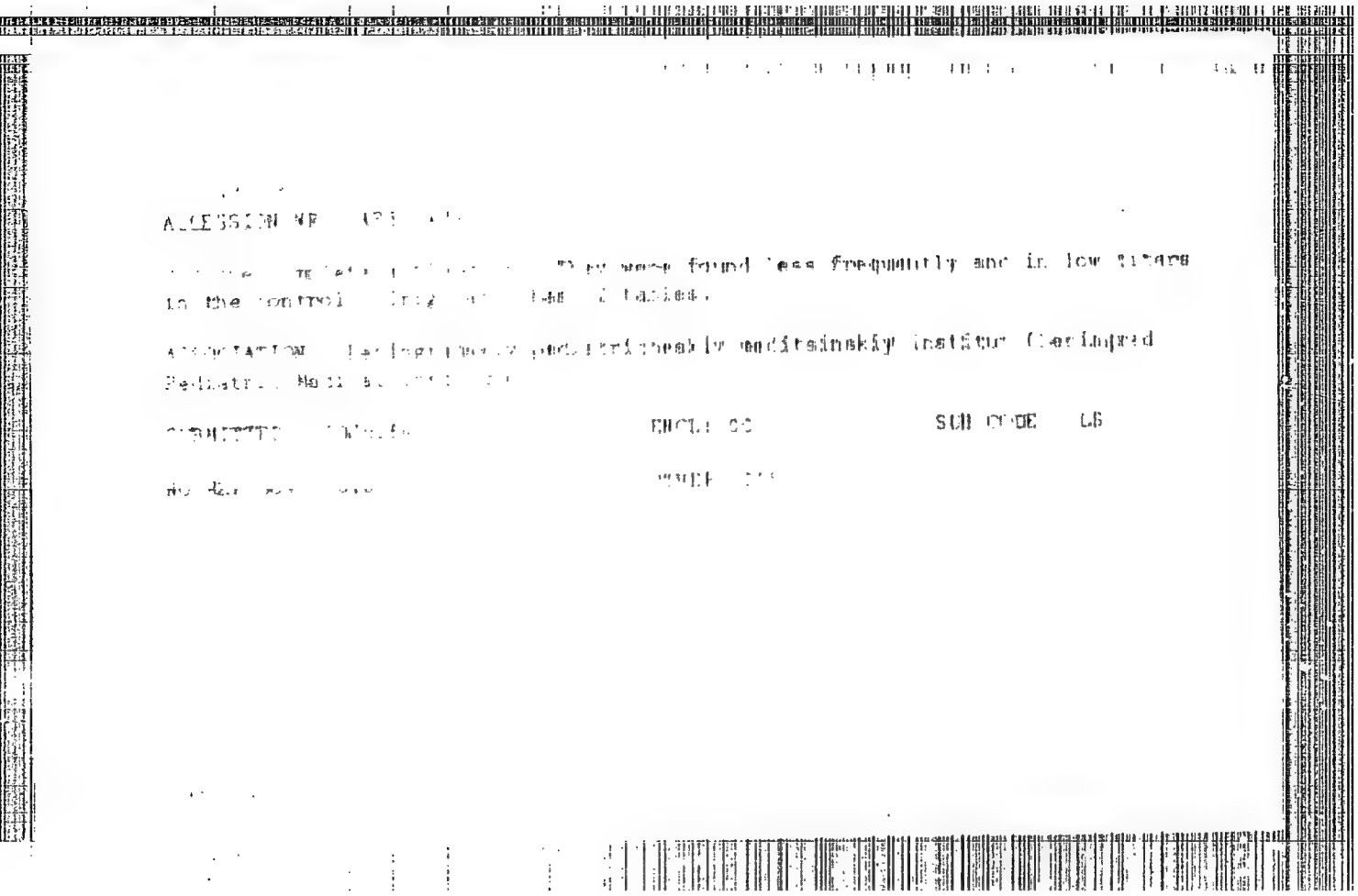
Detection of incomplete antibodies in salmonellosis patients. Zhur. mikrobiol., epid. i immun. 42 no.6:121-124 '65. (MIRA 18:9)

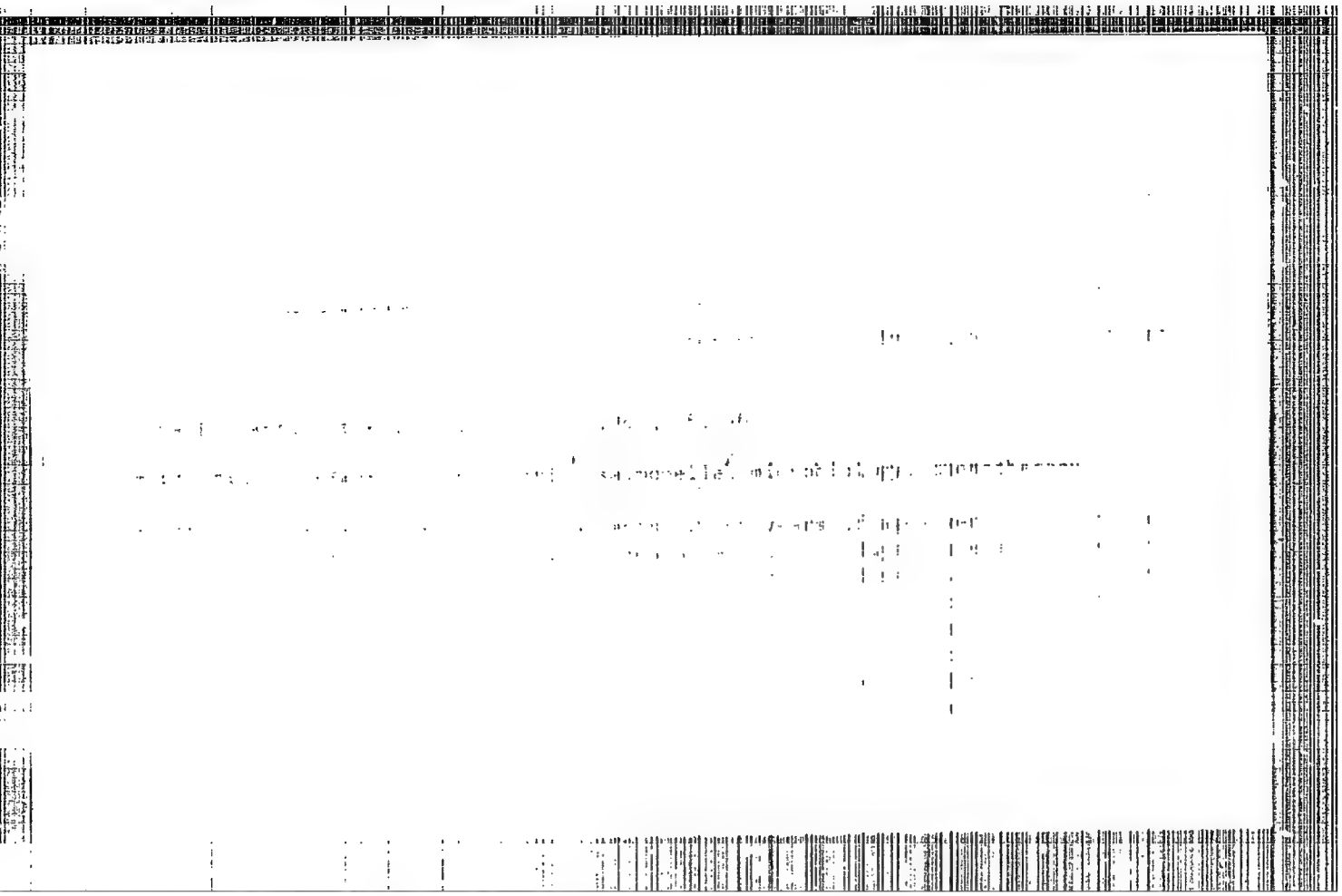
1. Leningradskiy pediatricheskiy meditsinskiy institut.

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 6, [illegible]
121-124

TOPIC TAGS: [illegible]

ABSTRACT: A modified [illegible] of the Coombs' test was used to detect incomplete [illegible] serum [illegible] patients





APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R001860920019-5"

ACCESSION NR: AP5012904

Leningrad Institute of Epidemiology and Microbiology

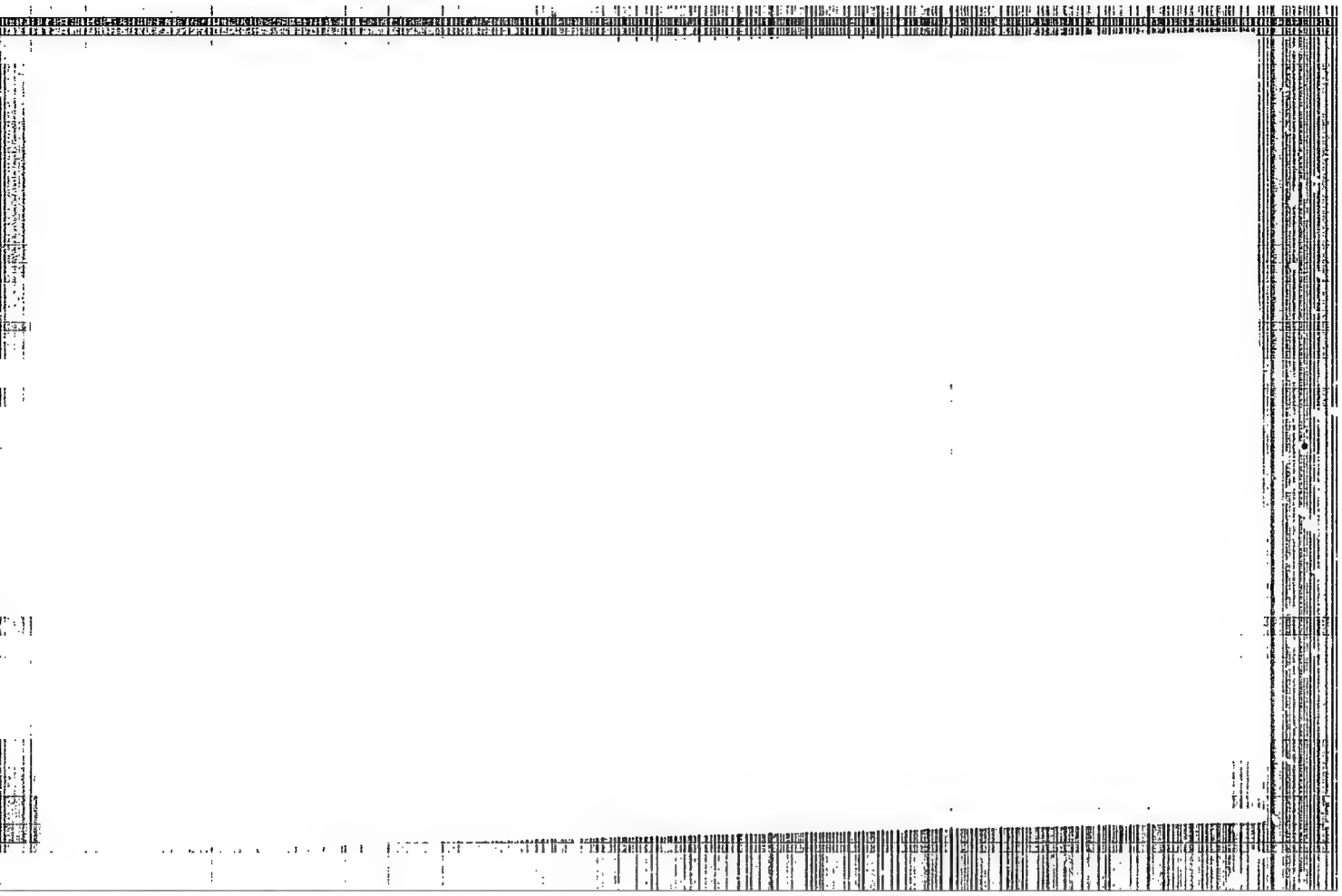
SUBMITTED: 12Jun64 ENCL: 00 SUB CODE: LS

OTHER: 007

VORONOVA, C.V.; CHAKHTINSKAYA, M.C.

Clinical microbiological characteristics of salmonellosis patients treated with monomycin. Antibiotiki 10 no.5:461-465 My '65.
(MIRA 18:6)

1. Kafedra infektsionnykh bolezney vzroslykh (zav. - prof. Ye.S. Gurevich) Leningradskogo pediatricheskogo meditsinskogo instituta i laboratoriya kishechnykh infektsiy (zav. - prof. E.M.Novogorodskaya) Leningradskogo nauchno-issledovatel'skogo instituta epidemiologii i mikrobiologii imeni Pastera.



APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R001860920019-5"

LEVSHIN, V.L.; ARAPOVA, E.Ya.; BLAZHEVICH, A.I.; VORONOV, Yu.V.; VORONOVA, I.G.; GUTAN, V.B.; LAVROV, A.V.; POPOV, Yu.M.; FRIDMAN, S.A.; CHIKHACHEVA, V.A.; SHCHAYENKO, V.V.

Cathodoluminescence of zinc sulfide and certain other cathodoluminophors. Trudy Fiz. inst. 23:64-135 '63. (MIRA 16:10)

ACCESSION NR: AT4001250 S/2504/63/023/000/0064/0135

AUTHORS: Levshin, V. L.; Arapova, E. Ya.; Blazhevich, A. I.; Voronov, Yu. V.; Voronova, I. G.; Gutan, V. B.; Lavrov, A. V.; Popov, Yu. M.; Fridman, S. A.; Chikhacheva, V. A.; Shchavenko, V. V.

TITLE: Study of cathode luminescence of zinc sulfide and other cathode phosphors

SOURCE: AN SSSR. Fizicheskiy institut. Trudy*, v. 23, 1963, 64-135

TOPIC TAGS: luminescence, cathode luminescence, phosphor, zinc sulfide phosphor, phosphorescence, photoluminescence, zinc sulfide, excitation energy, phosphor excitation

ABSTRACT: This is a review article devoted to a theoretical and experimental analysis of excitation energy losses in cathode luminescence, the approximate maximum cathode luminescence yield, exchange

Card 1/4

ACCESSION NR: AT4001250

of energy between an electron beam and a layer of luminor through which it passes, and also the evolution of individual glow processes as functions of the excitation density and the temperature. Particular attention is paid to an investigation of the persistence properties of ZnS phosphors and their connection with the location and filling of the electron and hole localization levels. A detailed analysis is made of the energy losses resulting from thermalization of the electrons and holes, and it is shown that in cathode luminescence these unavoidable losses are very large and decrease the glow efficiency by approximately 2.5 times. Allowing for other losses, the over-all glow efficiency in cathode luminescence cannot exceed 0.27--0.30. The study of the passage of an electron beam through sublimated layers of zinc-sulfide luminors has established the voltage dependence of the electron penetration depth and the energy losses at different depths of electron penetrations. The dependence of the spectral composition, brightness, and energy glow yield of various zinc-sulfide and phosphate luminors on the current density,

Card 2/4

ACCESSION NR: AT4001250

voltage, and temperature were investigated. A glow efficiency of 0.256 was calculated for one type ZnS-Ag luminor. The attenuation of glow of different types of cathode luminors to 0.1, 0.01, and 0.001 of the initial brightness was investigated and the presence of two superimposed de-excitation processes of different durations is established. The causes of the reduction in the duration of afterglow with increasing excitation density are considered. The arrangement and development of localization level of the investigated luminors was studied by the thermal de-excitation method and a connection was established between the attenuation and liberation of the levels at definite depths. "The authors are grateful to senior designer A. G. Ovchinnikov, radio technicians V. P. Ly*sov and Yu. A. Platukhin, senior laboratory assistants Z. M. Bruk, S. B. Kondrashkin, N. V. Mitrofanova, L. N. Petrakov, and A. D. Sy*chkov and laboratory assistant V. P. Prokhorova who helped with the present work." Orig. art. has: 66 figures, 20 formulas, and 4 tables.

Card 3/4

ACCESSION NR: AT4001250

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 00	DATE ACQ: 30Nov63	ENCL: 00
SUB CODE: PH	NO REF SOV: 049	OTHER: 030

Card 4/4

VORONOVA, I.I.

Hydrometeorological service for navigation and timber rafting purposes in Rybinsk Reservoir. Meteor.i gidrol. no.11:46-48 N '61. (MIRA 14:10)

(Rybinsk Reservoir—Hydrometeorology)

VORONOVA, I.I.

Thunderstorms and squalls in the Rybinsk Reservoir region.
Sbor. rab. Ryb. gidromet. obser. no. 2:146-159 '65
(MIRA 19:1)

VORONOVA, I. I.

with P. I. Yamshanov "Causes of Crack Formation Under Lost Heads of Steel Castings"

Making of Large Castings, Moscow, Mashgiz, 1958, 108pp.

(This book was prepared for the 25th Anniversary of the Uralmashzavod. The stages of founding development in the plant and the plant's progress and achievements in this field are described.

YAMSHANOV, P.I.; VORONOVA, I.I.

Cause of crack formation under riser heads on steel castings. Sbor. st.UZTM no.4:48-55 '58. (MIRA 11:12)
(Steel castings--Testing) (Steel--Analysis)

36537
S/081/62/000/006/067/117
B149/B108

11.0130

AUTHORS: Simakova, T. L., Strigaleva, N. V., Kolesnik, Z. A., Voronova, I. K., Gerasyuto, Z. S., Shmonova, N. I.

TITLE: The role of bacteria in the transformation of hydrocarbons and asphalto-bituminous components of paraffin-base petroleum under anaerobic conditions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 527, abstract 6M130 (Tr. Vses. neft. n.-i. geologo-razved. in-ta, no. 174, 1961, 77 - 97)

TEXT: The results of experiments with three different communities of bacteria taken from the water below the petroleum layer in the wells of Tashkal, the Staro-Groznenskiy oil field and the Emba region are described. It is shown that under the biological action of bacteria certain changes occur in the structure of methane hydrocarbons separated from the fraction 250 - 300°C of Tashkal petroleum by forming complexes with urea. The methane hydrocarbons in the analogous fractions of Makhachkala petroleum were not affected by bacteria. The structural composition of aromatic

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S/081/62/000/006/067/117
B149/B108

The role of bacteria in the ...

hydrocarbons in the kerosene and oil fractions was changed, the aromatic rings showing a decrease and the paraffin chains an increase. It is concluded that the change in composition of the hydrocarbons and of the asphalt-bituminous part of petroleum depends both on their chemical composition and on the species-composition of the bacterial community. [Abstracter's note: Complete translation.]

X

Card 2/2

SIMAKOVA, T.L.; KOLESNIK, Z.A.; STRIGALEVA, N.V.; VORONOVA, I.K.; SHMONOVA, N.I.; GERASYUTO, Z.S.; ANDREYEVA, L.G.

Bacteriological change of petroleums and their components under anaerobic conditions. Trudy Inst.mikrobiol. no.9:81-85 '61. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy institut, Leningrad.
(Petroleum--Microbiology)

VORONOVA, I.K.

Capillary method of obtaining the total count of living bacteria. (MIRA 11:12)
Trudy VNIGRI no.123:253-256 '58.
(Petroleum--Bacteriology)

USSR/Plant Physiology - Respiration and Metabolism. I-3

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15136

Author : Mitiushova M.M., Voronova I.K.
Inst :
Title : On the Forms of Nitrogen Substances in the Juice of Leguminous Plants with and Without Tubers.

Orig Pub : Uch. zap. LGU, 1956, No 216, 189-197

Abstract : The contents of common nitrogen, and protein, amine and amide nitrogen in the juice of leguminous plants (lupine, beans) with and without tubers were compared. Leaves, stems and roots in various periods of vegetation were studied. The content of general Nitrogen in the juice of infected plants was considerably high. However, the correlation between amine nitrogen, amide and protein nitrogen in control and infected plants was almost equal (with the exception of nitrogen amide, of which the relative content in infected plants was always higher). The conclusion

Card 1/2

USSR/Plant Physiology - Respiration and Metabolism. I-3

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15186

was drawn that the increase in the content of general nitrogen in infected plants occurred more or less equally at the expense of all the tree forms of nitrogen studied.

Card 2/2

was determined in the juice of lupine and chick-peas with and without nodules. Before sowing, the seeds were infected with the nodular bacteria of the correspond-

VORONOVA, I. K.

11(0) PHASE I BOOK EXPLOITATION SOV/1960

Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut

Geokhimicheskiy sbornik, no. 5 (Collected Papers on Geochemistry, No. 5) Leningrad, Gostoptekhizdat, 1958. (Series: Its: Trudy, vyp. 123) 1,000 copies printed.

Ed.: Pavel Fedorovich Andreyev; Exec. Ed.: L. Ya. Rusakova; Tech. Ed.: I. N. Gennad'yeva.

PURPOSE: The book is intended for the technical and scientific personnel of institutes and VNII (Central Scientific Research Laboratories) of the petroleum industry, and all those interested in the geology and geochemistry of petroleum.

TABLE OF CONTENTS:

Vorobeva, I.K.

MITYUSHOVA, N.M.; GOLUBOVSKAYA, E.K.; VOROBOVA, I.K.

Nitrogen content of the sap of leguminous plants with and without nodules. Uch.zap.Len.un. no.216:180-187 '56. (MLRA 10:3)
(LEGUMES) (ROOT TUBERCLES) (NITROGEN)

MITYUSHOVA, N.M.; VORONOVA, I.K.

Forms of nitrogenous substances in the sap of leguminous plants with and without nodules. Uch.zap.Len.un. no.216:188-195 '56.
(MLRA 10:3)

(LEGUMES) (ROOT TUBERCLES) (NITROGEN)

SHMETER, S.M.; RESHCHIKOVA, A.A.; SILAYEVA, V.I.; VORONOVA, I.P.

Characteristics of the horizontal temperature distribution in a zone of cumulonimbus clouds. Trudy TSAO no.53:79-90 '63. (MIRA 17:10)

L 46716-66 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(1) IJP(c)

ACC NR: AP6023645 SOURCE CODE: UR/0381/66/000/002/0022/0029

53
13

AUTHOR: Oshchepkov, P. K.; Klimov, K. M.; Voronova, I. S.

ORG: NII Introscopy (NII introskopii)

TITLE: Development and investigation of an electromagnetic intrascope for recording 2-dimensional images of the magnetic relief of tubes on electrochemical paper

SOURCE: Defektoskopiya, no. 2, 1966, 22-29

TOPIC TAGS: flaw detection, magnetic recording, recording paper, ~~steel~~ METAL tube

ABSTRACT: The construction and use of an electromagnetic "intrascope" is described. Ferromagnetic tubes were inspected for artificially-induced and natural defects, by transferring 2-dimensional magnetic relief patterns of the defects to electrochemical paper. Schematic drawings of the intrascope components and their circuitry are presented. The original signal is emitted by an inductive probe transmitter, having a range of sensitivity of 0.015-0.1 v/oe relative to the external magnetic field. After boosting, the signal is sent through an amplitude modulator, a power amplifier, a rectifier, a signal synthesizer (the topograph) and finally, a recorder. Circumferential scanning of tubes with an outer diameter of 57.6 mm was done by rotating them at 2 rev/sec. In the longitudinal direction, the image scale was usually 1:1. In the transverse direction the image scale m was given by the formula

UDC: 620.179.14

Card 1/2

L 46715-66

ACC NR: AP6023645

$$m = \frac{l_{line}}{\pi(D+2h)},$$

where l_{line} is the line length of the paper (mm), D is the outer tube diameter (mm) and h is the clearance between the surface of the tube and the tip of the transmitter (mm). Other process parameters were: strength coefficient--10^6, recorder power--0.2 to 0.5 watt, recorder current--20 to 50 ma, ohmic resistance of the electrochemical paper--600 to 200 ohms, characteristic frequency--1500 cps. Inspection of tubes made from 20 steel was successful in locating defects as small as 5-10% of the area of the transmitter probe. A list of the artificially-induced defects is given, showing their positions along the axis and perimeter of the tubes. Intragrams illustrated the effect of different magnetic arrangements on the characteristics of the 2-dimensional images and also depicted natural forge and lap defects. The recording speed ranged from 1200-2500 m/sec depending on the quality of the electrochemical paper. The maximum scanning rate was 10 cm/sec for m=1:10 in the longitudinal direction and m=1:4 transversely. Orig. art. has: 5 figures, 1 table, 1 formula.

SUB CODE: 14,09/ SUBM DATE: 13Oct65/ ORIG REF: 005

Card 2/2 fv

STROMBERG, A.G.; VORONOVA, K.R.

Effect of the dropping period on the half-wave potential of manganese and calculation of the current density of the manganese exchange [with summary in English]. Zhur.fiz.khim. 33 no.2:318-325 F '59.
(MIRA 12:4)

1. Tomskiy politekhnicheskiy institut im. S.M. Kirova.
(Manganese) (Polarography)

5(3) SOV/79-29-9-66/76

AUTHORS: Voronova, K. R., Stromberg, A. G.

TITLE: Polarographic Investigation of the Azo Derivatives of Barbituric and Thiobarbituric Acid

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 3117-3124 (USSR)

ABSTRACT: Among the soporifics and antispasmodics the derivatives of barbituric acid such as Veronal, Luminal etc have been already used since long. K. R. Voronova (Ref 1) synthesized a series of azo derivatives of barbituric and thiobarbituric acid. Pharmacological investigations showed that many of these azo derivatives are soporifics and antispasmodics. The dependence of the physiological activity on their structure was observed. In the present paper the azo derivatives of barbituric and thiobarbituric acid were polarographically investigated in order to determine the relation between their structure and their reducibility, which is characterized by their semiwave potential at the dropping-mercury cathode. From publications (Refs 2-4) it is known that azo compounds are easily reduced at the dropping-mercury cathode and that their reducibility depends on the molecular structure. Concern-

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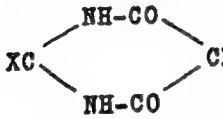
Polarographic Investigation of the Azo Derivatives of Barbituric and Thiobarbituric Acid

ing azo benzene and its derivatives it was proved (Ref 5) that two electrons participate in the reduction, and that hydrazo compounds result as reduction products:

$R\text{-}N\text{=}N\text{-}R_1 + 2H^+ + 2e^- \longrightarrow RNH\text{-}NHR_1$. On the basis of a series of investigations it was found that the system of the "azo compound - hydrazo compound" is reversible (Refs 3, 7, 8). 14 Azo derivatives of barbituric acid and 13 corresponding azo derivatives of thiobarbituric acid of the general formula:



were investigated, where X=O in barbituric acid and X = S in thiobarbituric acid; R = phenyl, naphthyl, phenyl with substituents, naphthyl with substituents. It was found that the reduction of the azo derivatives of thiobarbituric acid is more reversible than that of the corresponding azo derivatives of barbituric acid. In the series of the azo derivatives with the naphthalene cycle the introduction of

Polarographic Investigation of the Azo Derivatives of Barbituric and Thiobarbituric Acid

the sulfo group facilitates reduction. In the series of azo derivatives with a benzene cycle the introduction of the sulfo- and also of the carboxyl group inhibits reduction. A theoretical explanation of the experimental results obtained is suggested as being provided by the influence of the sulfo group on the semiwave potential of the compounds according to the theory of retarded discharge and ionization. In the polarographic investigation of the above azo derivatives the visual polarograph of the system UFAN was used. All determinations were made in a thermostat with a toluene thermoregulator at 25°. All potentials in the text, in the tables, and in the figures are given with respect to the saturated calomel electrode. The azo derivatives were produced by K. R. Voronova under the supervision of L. P. Kulev to whom the authors express their thanks. There are 2 figures, 4 tables, and 9 references, 4 of which are Soviet.

ASSOCIATION: Tomskiy politekhnicheskiy institut
(Tomsk Polytechnic Institute)

SOV/79-29-9-66/76

Polarographic Investigation of the Azo Derivatives of Barbituric and Thiobarbituric Acid

SUBMITTED: July 16, 1958

Card 4/4

VORONOVA, K.R.; STROMBERG, A.G.

Polarographic study of azo derivatives of salicylic and α-hydroxynaphthoic acids. Zhur.ob.khim. 33 no.7:2098-2102 Jl '63. (MIRA 16:8)

1. Tomskiy politekhnicheskiy institut.
(Salicylic acid) (Naphthoic acid) (Azo compounds)

VORONOVA, K.R.; STROMBERG, A.G.

Polarographic and adsorptive properties of benzoyl derivatives of some barbiturates. Zhur.ob.khim. 31 no.8:2786-2792 Ag '61. (KIRA 14:8)

1. Tomskiy politekhnicheskiy institut.
(Barbituric acid)

SOV/76-33-2-12/45

5(4)
AUTHORS: Stromberg, A. G., Voronova, K. R.

TITLE: The Effect of the Dropping Period on the Half-Wave Potential of Manganese and Calculation of the Density of the Manganese Exchange Current(Vliyaniye perioda kapaniya na potentsial poluvolny margantsa i vychisleniye plotnosti toka obmena margantsa)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 2, pp 318 - 325 (USSR)

ABSTRACT: A series of observations (Refs 4-10) could be explained by the theory of the delayed ionization discharge (Ref 1) which was used by A. G. Stromberg for the amalgam dropping electrode (Refs 2,3). The theory was further developed by studying metals which do or do not form amalgams with mercury, and the theoretical relationships were tested using the example indicated in the title. The theoretical section of the paper explains the two principal cases involved. A new polarographic method for calculating the density of the exchange current of pure metals is suggested, and the density of the exchange current between Mn ions in solution and metallic

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manganese (on a 1 cm^2 true surface) is calculated. For an amalgamation it is assumed that the potential of the half-wave varies linearly with the logarithm of the dropping period, so that with an increase in the dropping period the potential of the half-wave becomes more positive. Corresponding to the derived equations the half-wave potential is independent of the velocity of discharge of the mercury. In the case that no amalgam is formed the concentration of the metal atoms separated on the mercury drops must be considered as constant in the equations. To test the theoretically derived equations of the potential of the half-wave as a function of the dropping period (15) the irreversible polarographic waves of manganese were studied at various dropping periods and compared with the reversible polarographic waves of cadmium. The current strength was measured with a M 21/2 mirror galvanometer while the potential of the dropping electrode was measured with a PPTV-1 potentiometer. Solutions of 10^{-3}m $MnCl_2$, 1.0 m KCl + 0.005% gelatin (or 10^{-3} m $CdCl_2$,

 1.0 m KCl + 0. 005% gelatin) were investigated at dropping

periods of 1.2 to 13 seconds using 3 different capillaries and at 19-20°C. The experimental results show that the manganese wave is irreversible, i.e., not only the diffusion process is determining but another delaying stage of the electrode process is also. The experimental data (Figs 1-4) agree well with the theoretical line for the coordinates of the half-wave potential and the logarithm of the dropping period. The line possesses a theoretical angular coefficient of 0.020. There are 4 figures and 16 references, 12 of which are Soviet.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S. M. Kirova (Tomsk Polytechnical Institute imeni S. M. Kirov)

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KULEV, L.P.; VORONOVA, K.R.

Azo derivatives of barbituric and thiobarbituric acids and their physiological activity. Izv.TPI 111:30-35 '61. (MIRA 16:9)
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AUTHOR: Sinitsy*n, S. N.; Rumyantsev, G. I.; Voronova, K. V.

TITLE: Some changes in the carbohydrate metabolism caused by total-body vibration

SOURCE: Gigiyena i sanitariya, no. 5, 1964, 44-48

TOPIC TAGS: vibration, carbohydrate metabolism, sugar blood content, glycogen blood content, glykemic curve

ABSTRACT: Experiments were conducted with rabbits and dogs for 70—85 days. The rabbits were exposed to total-body vibration with amplitudes of 15, 20, and 200 μ and a frequency of 75 cps, and the dogs were exposed to total-body vibration with an amplitude of 750 μ and a frequency of 50 cps. The experimental data showed that a single exposure to total-body vibration with an amplitude of 200 μ and a frequency of 75 cps for a period of 4 hours decreased the amount of sugar and glycogen in the blood of the test animals. Repeated exposure to the same vibration resulted in a more significant decrease of the sugar and glycogen blood content in the test animals;

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